

## METHOD AND SYSTEM FOR MEASURING RUNOUT OF A ROTATING TOOL

### ABSTRACT OF THE DISCLOSURE

5 A method, system, and computer program product for measuring runout of a rotating tool are provided. A rotating tool is illuminated with a coherent electromagnetic radiation. The tool has an axis and a reflective surface, and completes a rotation in one period. The surface has a radial displacement from the axis of the rotating tool. A path of coherent electromagnetic radiation reflected from the reflective surface is sensed. A maximum radial displacement is determined based upon the sensed path and a minimum radial displacement is determined based upon the sensed path. A runout is determined based upon the difference  
10 between the maximum radial displacement and the minimum radial displacement. A tool edge margin can be measured by analysis of specific areas of the rotating tool.

